

CLAIMS

What is claimed is:

1. A product netting machine
comprising: a base;
a chute on the base having a receiving end for receiving products, and a discharge end for discharging products;
a rucker for receiving netting and permitting netting to move with discharged products from the chute discharge end;
a product receiver on the base at the discharge end of the chute;
voiders on the base operated to form a rope section of the netting between the product receiver and the discharge end of the chute when a discharged product is on the product receiver;
and
a clipper on the base operated to clip the rope section of the netting, the clipper including at least two die supports, at least two punches mounted for movement on the die supports, at least two anvils, a drive to intermittently drive the punches to the anvils, sidewardly adjacent clip rails, and clip pushers to feed clips from the rails to between the punches and the anvils;
whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from the adjacent clip rails to between both the punches and both the anvils.
2. A product netting machine as in claim 1, one feed rail extending across at least one of the die supports;

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whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from one side to another side of the die support along the feed rail that extends across the one of the die supports.

3. A product netting machine as in claim 1, the clipper moving in a central plane with outer sides generally parallel to the plane, and one clipper outer side being free of any outwardly extending clip rail; whereby successively netted and clipped products are formed by the product netting machine, and as an aspect of the machine, the clipper-free clipper outer side permits enhanced placement of clips.

4. A product netting machine as in claim 1, one feed rail extending across at least one of the die supports; the clipper moving in a central plane with outer sides generally parallel to the plane, and one clipper outer side being free of any outwardly extending clip rail; whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from one side to another side of the die support along the feed rail that extends across the one of the die supports and the clipper-free clipper outer side permits enhanced placement of clips.

5. A product netting machine as in claim 1, one feed rail extending through at least one of the die supports.

6. A product netting machine as in claim 1, one feed rail extending adjacent its respective die support perpendicular to the major plane of the die and one feed rail extending adjacent its respective die support at an angle to the perpendicular to the major plane of the die.

7. A clipper for a product netting machine, the clipper
comprising: at least two die supports;
at least two punches mounted for movement on the die supports;

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at least two anvils;

a drive to intermittently drive the punches to the

anvils; sidewardly adjacent clip feed rails; and

clip pushers to feed clips from the rails to between the punches and the anvils;

whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from the adjacent clip rails to between both the punches and both the anvils.

8. A clipper as in claim 7, one feed rail extending across at least one of the die supports;

whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from one side to another side of the die support along the feed rail that extends across the one of the die supports.

9. A clipper as in claim 7, the clipper moving in a central plane with outer sides generally parallel to the plane, and one clipper outer side being free of any outwardly extending clip rail;

whereby successively netted and clipped products are formed by the product netting machine, and as an aspect of the machine, the clipper-free clipper outer side permits enhanced placement of clips.

10. A clipper for a product netting machine as in claim 7, one feed rail extending across at least one of the die supports; the clipper moving in a central plane with outer sides generally parallel to the plane, and one clipper outer side being free of any outwardly extending clip rail;

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whereby successively netted and clipped products are formed by the product netting machine, and as a step of the netting and clipping, clips pass from one side to another side of the die support along the feed rail that extends across the one of the die supports and the clipper-free clipper outer side permits enhanced placement of clips.

11. A clipper as in claim 7, one feed rail extending through at least one of the die supports.

12. A clipper as in claim 7, one clip feed rail, a first feed rail, extending adjacent its respective die support, a first die support, perpendicular to the major plane of the respective die and one clip feed rail, a second feed rail, extending adjacent its respective other die support, a second die support, at an angle to the perpendicular to the major plane of the respective other die.

13. A clipper as in claim 11, the first die support having a first clip-forming die and the second die support having a second clip-forming die, the first clip-forming die being angled to the major plane of the respective die and the second clip-forming die being perpendicular to the major plane of the respective other die.